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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/441,231 11/16/99 BROEMMELSIEK

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EXAMINER

CHUNG, D

ART UNIT

PAPER NUMBER

2672

DATE MAILED:

08/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/441,231

Applicant(s)

BROEMMELSIEK, RAYMOND M.

Examiner

Daniel J Chung

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 ⁹⁸⁸⁻²⁷⁻⁰¹ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 22-24 and 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-21, 25 and 26, drawn to displaying a series of images according to a user's position relative to a display screen, classified in class 345, subclass 672.
- II. Claims 22-24 and 27, drawn to transmitting a series of image to increase fidelity of transmission, classified in class 382, subclass 235.
- III. Claims 28 and 29, drawn to increasing the scale of a portion of a displayed object, classified in class 345, subclass 661.

The inventions are distinct, each from the other because of the following reasons:

Inventions in Group I, Group II and Group III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group II and III have separate utility such as the transmission of images of Group II is not needed for the display of Groups I and III and the scaling of a portion of a displayed object (Group III) is not needed to display the images according to a user position (Group I). See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I or Group III is not required for Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mary J. Breiner, Reg. No. 33,161 on August 21, 2001 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-21 and 25-26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 22-24 and 27-29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Information Disclosure Statement

Receipt is acknowledged of Applicant's Information Disclosure Statement of 2-18-2000, which has been placed in the application file and considered by the Examiner.

Drawings

The drawings are not objected to by the Examiner.

Specification

Please review the application and correct all informalities.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broemmelsiek (5,574,836) in view of Goldberg et al (5,963,203).

Regarding claim 1, Broemmelsiek discloses that the claimed feature of a method of displaying a series of images according to a user's position relative to a display screen, (See Abstract, Fig 2) said display method comprising:

Displaying a first image from the series of images (See Abstract, col 19 line 65-col 20 line 9)

Receiving information regarding a change in the user's position relative to the display screen ["view position data may be employed to determined..."] (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20)

Displaying a second image from the series of images in response to the change in the user's position ["...display from an arbitrary view position"] (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20)

Broemmelsiek does not specifically disclose that "a first image from the series of images". However, Goldberg et al discloses that a series of image with the user can manipulate the displayed image by designating different viewing positions. (See Abstract, Fig 4, Fig 5) The motivation would have been to provide the motion of an object, view angle change between the object and viewer, and various other effects, as mentioned in the teaching of Broemmelsiek. (See col 19 line 65-col 20 line 9) Therefore, it would have been obvious to one skilled in the art to incorporate "the series of images" into the teaching of Broemmelsiek.

Regarding claim 2, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the series of image is a series of 2 dimensional images. (Fig 2; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 3, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the change in the user's position is determined by a change in the user's head position. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 4, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the second image is an image from the series of images determined by the user's head position where the change in the user's head position is a result of movement selected from the group consisting of left head roll, right head roll, up tilt, down tilt, right translation, left translation, forward translation and backward translation. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 5, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the right translation and left translation produce a continuous rotation of images in the series of images. (See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 6, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the second image is the first image displayed with new display characteristics. (See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 8, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the first image is a center image of the series of images. (See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 9, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that if the second image is not available to be displayed then

an available image in the series of images closest to the second image id displayed.

(See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 25, Claim 25 is the corresponding computer readable medium of claim 1. Thus, the rejection to claim 1 hereinabove is also applicable to claim 25.

Claims 10-21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broemmelsiek in view of Goldberg et al, and further in view of Davidson et al (6,208,349)

Regarding claim 10, Broemmelsiek discloses that the claimed feature of a method of simultaneously receiving, displaying and interacting with a series of images in response to movement of an interactive device, (See Abstract, Fig 2) said display method comprising:

a) receiving for display a first image from the series of images (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20, col 19 line 65-col 20 line 9)

b) receiving for display subsequent images from the series of images (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20, col 19 line 65-col 20 line 9)

c) permitting viewing of and interacting with the first image while performing step b) where interaction with the first image is in response to signals from the interactive

device. (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20, col 20 line 42+)

Broemmelsiek does not specifically disclose that “a first image from the series of images”. However, Goldberg et al discloses that a series of image with the user can manipulate the displayed image by designating different viewing positions. (See Abstract, Fig 4, Fig 5) The motivation would have been to provide the motion of an object , view angle change between the object and viewer, and various other effects, as mentioned in the teaching of Broemmelsiek. (See col 19 line 65-col 20 line 9) Therefore, it would have been obvious to one skilled in the art to incorporate “the series of images” into the teaching of Broemmelsiek.

Also, Broemmelsiek does not explicitly disclose that “interactive device”. However, such feature of claimed limitation is shown in the teaching of Davidson et al. (See Abstract, Fig 1-5, col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30) The motivation would have been to provide efficient way of a simulated interactive based on the positions of viewer. Therefore, it would have been obvious to one skilled in the art to incorporate the teaching of Davidson et al into the teaching of Broemmelsiek.

Regarding claim 11, claim 11 is similar in scope to the claim 2, and thus the rejection to claim 2 hereinabove is also applicable to claim 11.

Regarding claim 12, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the signals from the interactive device represent movement of the interactive device. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claim 13, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the step of displaying a second image in response to movement of the interactive device. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claim 14, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the second image is an image from the series of images determined by the movement of the interactive device where the movement is selected from the group consisting of left movement right movement, forward movement and backward movement. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claim 15, claim 15 is similar in scope to the claim 5, and thus the rejection to claim 5 hereinabove is also applicable to claim 15.

Regarding claims 16-19, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the interactive device is that of a tracking ball/ joystick/ body part movement/ the head. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claims 20-21, claims 20-21 are similar in scope to the claims 8-9, and thus the rejections to claims 8-9 hereinabove are also applicable to claims 20-21.

Regarding claim 26, Claim 26 is the corresponding computer readable medium of claim 10. Thus, the rejection to claim 10 hereinabove is also applicable to claim 26.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Art Unit: 2672


Or:

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am - 5:00pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Michael, Razavi can be reached on (703) 305-4713. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

djc
August 20, 2001


JEFFERY BRIER
PRIMARY EXAMINER